



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/009,873	11/01/2002	Anand Ranganathan	SHW-009US	4622
959 7590 01/31/2007 LAHIVE & COCKFIELD, LLP ONE POST OFFICE SQUARE BOSTON, MA 02109-2127			EXAMINER LU, FRANK WEI MIN	
			ART UNIT	PAPER NUMBER
			1634	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		01/31/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

74

<b>Office Action Summary</b>	<b>Application No.</b> 10/009,873	<b>Applicant(s)</b> RANGANATHAN, ANAND	
	<b>Examiner</b> Frank W. Lu	<b>Art Unit</b> 1634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 27 November 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 18-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 and 21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 November 2002 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

1. Applicant's response to the office action filed on November 27, 2006 has been entered. The claims pending in this application are claims 1-21 wherein claims 18-20 have been withdrawn due to species election. Rejection and/or objection not reiterated from the previous office action are hereby withdrawn in view of the response filed on November 27, 2006. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

### ***Claim Objections***

2. Claim 9 or 10 is objected to because of the following informality: "said starting DNA construct" should be "cleaved starting DNA construct".

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-17 and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claim 1 is rejected as vague and indefinite. Since step a) of claim 1 does not indicate that, after cleaving each desired DNA unit with said restriction enzyme, a first desired DNA in step c)

Art Unit: 1634

contains said DNA methylase recognition sequence that is compatible with such a restriction enzyme recognition sequence, it is unclear how to bring the ligated product into contact with a DNA methylase enzyme such that the restriction site at the 3' end of the first desired DNA unit in the ligated product is abolished and thereby generating a ligated product containing a DNA modification as recited in step c) of claim 1. Please clarify.

6. Claim 1 is rejected as vague and indefinite because it is unclear that an accessible unmodified recognition site for said restriction enzyme in step d) is identical to the restriction site at 5' end of the first desired DNA unit or not. If an accessible unmodified recognition site for said restriction enzyme in step d) is not identical to the restriction site at 5' end of the first desired DNA unit, it is unclear how the ligated product and the ligated product containing a DNA modification can contain another accessible unmodified recognition site for said restriction enzyme. Please clarify.

7. Claim 1 is rejected as vague and indefinite in view of steps c) to e). Since, in view of steps c) to e), the DNA constructs used for ligating each desired DNA unit in step e) must be different while step c) requires to use the same DNA construct for ligating each desired DNA unit, it is unclear how to generate a DNA construct containing all the desired DNA units in sequence using the same DNA construct. Please clarify.

8. Claim 4 is rejected as vague and indefinite because it is unclear that an accessible XbaI site in step d) is identical to XbaI site at 5' end of the ligation product recited in step c) or not. If an accessible XbaI site in step d) is not identical to XbaI site at 5' end of the ligation product recited in step c), it is unclear how the ligated product can contain another accessible Xba I site. Please clarify.

Art Unit: 1634

9. Claim 4 is rejected as vague and indefinite. Since Xba I site at 3' end of the ligated product in step c) is abolished by transforming the ligated product into a dam<sup>+</sup> strain of *E. coli* (for dam methylase recognition site, see 2002-03 New England Biolabs Catalog, page 98), ligated product in step d) is different from ligated product in step c) and the phrase "the ligated product" in step d) is improper. Please clarify.

10. Claim 4 is rejected as vague and indefinite in view of steps c) to e). Since, in view of steps c) to e), the DNA constructs used for ligating each desired DNA unit in step e) must be different while step c) requires to use the same DNA construct for ligating each desired DNA unit, it is unclear how to generate a DNA construct containing all the desired DNA units in sequence using the same DNA construct. Please clarify.

11. Claim 5 recites the limitation "any one of claims 1 to 3" in the claim. There is insufficient antecedent basis for this limitation in the claim because claim 2 has been canceled. Please clarify.

12. Claim 5 recites the limitation "the DNA modification enzyme" in the claim. There is insufficient antecedent basis for this limitation in the claim because there is no phrase "DNA modification enzyme" in claims 1 and 3. Please clarify.

13. Claim 6 or 7 recites the limitation "any one of claims 1 to 4" in the claim. There is insufficient antecedent basis for this limitation in the claim because claim 2 has been canceled. Please clarify.

14. Claim 9 or 10 is rejected as vague and indefinite in view of steps c) to e). Since, in view of steps c) to e), the starting DNA constructs used for ligating each desired DNA unit in step e) must be different while step c) requires to use the same DNA construct for ligating each desired

Art Unit: 1634

DNA unit, it is unclear how to assemble the DNA units in sequence using the same DNA construct. Please clarify.

15. Claim 9 recites the limitation “the recognition site for the first restriction enzyme at the ligation junction” in step c) of the claim. There is insufficient antecedent basis for this limitation in the claim because there is no phrase “recognition site for the first restriction enzyme at the ligation junction” in steps a) and b) of the claim. Please clarify.

16. Claim 9 is rejected as vague and indefinite in view of step d) because it is unclear that the product from step c) in step d) is the ligated product from step c) or cleaved ligated product from step c). Please clarify.

17. Claim 10 is rejected as vague and indefinite in view of step c) because it is unclear that the cleaved first desired DNA unit generated in step b) is a cleaved first desired DNA unit from step b) or a cleaved and dephosphorylated first desired DNA unit from step b). Please clarify.

18. Claim 10 is rejected as vague and indefinite in view of step d) because it is unclear that the product from step c) in step d) is the ligated product in step c) or cleaved ligated product in step c). Please clarify.

### ***Conclusion***

19. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

Art Unit: 1634

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

20. No claim is allowed.

21. Papers related to this application may be submitted to Group 1600 by facsimile transmission. Papers should be faxed to Group 1600 via the PTO Fax Center. The faxing of such papers must conform with the notices published in the Official Gazette, 1096 OG 30 (November 15, 1988), 1156 OG 61 (November 16, 1993), and 1157 OG 94 (December 28, 1993)(See 37 CAR § 1.6(d)). The CM Fax Center number is (571)273-8300.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frank Lu, Ph.D., whose telephone number is (571)272-0746. The examiner can normally be reached on Monday-Friday from 9 A.M. to 5 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ram Shukla, can be reached on (571)272-0735.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to (571) 272-0547.

January 10, 2007



FRANK LU  
PRIMARY EXAMINER